

Attorney's Docket No. K&A 00-0256
Client's Docket No. MDI942

APPLICATION

FOR UNITED STATES LETTERS PATENT

SPECIFICATION

TO ALL WHOM IT MAY CONCERN:

BE IT KNOWN THAT I, **ZEALLA FLORES**, a citizen of
UNITED STATES OF AMERICA, have invented a new and useful
RACK DEVICE of which the following is a specification:

RACK DEVICE

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BACKGROUND OF THE INVENTION

Field of the Invention

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The present invention relates to truck racks and more particularly pertains to a new rack device for adjusting the height of the rack depending on the cargo being carried and the size of the vehicle being used.

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Description of the Prior Art

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The use of truck racks is known in the prior art. More specifically, truck racks heretofore devised and utilized are known to consist basically of familiar, expected and obvious structural configurations, notwithstanding the myriad of designs encompassed by the crowded prior art which have been developed for the fulfillment of countless objectives and requirements.

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Known prior art includes U.S. Patent No. 4,405,170; U.S. Patent No. 5,143,415; U.S. Patent No. 5,806,905; U.S. Patent No. 4,659,131; U.S. Patent No. 4,138,046; and U.S. Patent No. Des. 398,284.

While these devices fulfill their respective, particular objectives and requirements, the aforementioned patents do not disclose a new rack device. The inventive device includes a rack for a bed of a pickup truck. The pickup truck includes a front side, a back side and a pair of longitudinal sides. The rack comprises a pair of end portions. Each of the end portions is comprised of a first bar that includes a first end and a second end. The end portion also includes a second bar that is integrally coupled to and extending upwardly away from the second end of the first bar. There is a third bar that is integrally coupled to and extending away from the second bar. The third bar is orientated generally parallel to the first bar. There is also a fourth bar that is integrally coupled to and extending upwardly away from a free end of the third bar. The fourth bar is orientated generally parallel to the second bar. Additionally there is a fifth bar that is removably coupled to and extending between the second bars of each of the end portions. There is also a sixth bar that is removably coupled to and extending between the first bar of each of the end portions. The sixth bar includes a first end and a second end.

In these respects, the rack device according to the present invention substantially departs from the conventional concepts and designs of the prior art, and in so doing provides an apparatus primarily developed for the purpose of adjusting the height of the rack depending on the cargo being carried and the size of the vehicle being used.

SUMMARY OF THE INVENTION

In view of the foregoing disadvantages inherent in the known types of truck racks now present in the prior art, the present invention provides a new rack device construction wherein the same can be utilized for adjusting the height of the rack depending on the cargo being carried and the size of the vehicle being used.

The general purpose of the present invention, which will be described subsequently in greater detail, is to provide a new rack device apparatus and method which has many of the advantages of the truck racks mentioned heretofore and many novel features that result in a new rack device which is not anticipated, rendered obvious, suggested, or even implied by any of the prior art truck racks, either alone or in any combination thereof.

To attain this, the present invention generally comprises a rack for a bed of a pickup truck. The pickup truck includes a front side, a back side and a pair of longitudinal sides. The rack comprises a pair of end portions. Each of the end portions is comprised of a first bar that includes a first end and a second end. The end portion also includes a second bar that is integrally coupled to and extending upwardly away from the second end of the first bar. There is a third bar that is integrally coupled to and extending away from the second bar. The third bar is orientated generally parallel to the first bar. There is also a fourth bar that is integrally coupled to and extending upwardly away from a free end of the third bar. The fourth bar is orientated generally parallel to the second bar. Additionally there is a fifth bar that is removably coupled to and extending between the second bars of each of the end portions. There is also a sixth bar that is removably coupled to

and extending between the first bar of each of the end portions.
The sixth bar includes a first end and a second end.

There has thus been outlined, rather broadly, the more
5 important features of the invention in order that the detailed
description thereof that follows may be better understood, and in
order that the present contribution to the art may be better
appreciated. There are additional features of the invention that
will be described hereinafter and which will form the subject matter
10 of the claims appended hereto.

In this respect, before explaining at least one embodiment of
the invention in detail, it is to be understood that the invention is
not limited in its application to the details of construction and to
15 the arrangements of the components set forth in the following
description or illustrated in the drawings. The invention is capable
of other embodiments and of being practiced and carried out in
various ways. Also, it is to be understood that the phraseology and
terminology employed herein are for the purpose of description and
20 should not be regarded as limiting.

As such, those skilled in the art will appreciate that the
conception, upon which this disclosure is based, may readily be
utilized as a basis for the designing of other structures, methods
25 and systems for carrying out the several purposes of the present
invention. It is important, therefore, that the claims be regarded as
including such equivalent constructions insofar as they do not
depart from the spirit and scope of the present invention.

30 Further, the purpose of the foregoing abstract is to enable the
U.S. Patent and Trademark Office and the public generally, and
especially the scientists, engineers and practitioners in the art who

are not familiar with patent or legal terms or phraseology, to determine quickly from a cursory inspection the nature and essence of the technical disclosure of the application. The abstract is neither intended to define the invention of the application, which is
5 measured by the claims, nor is it intended to be limiting as to the scope of the invention in any way.

It is therefore an object of the present invention to provide a new rack device apparatus and method which has many of the
10 advantages of the truck racks mentioned heretofore and many novel features that result in a new rack device which is not anticipated, rendered obvious, suggested, or even implied by any of the prior art truck racks, either alone or in any combination thereof.

15 It is another object of the present invention to provide a new rack device which may be easily and efficiently manufactured and marketed.

It is a further object of the present invention to provide a new
20 rack device which is of a durable and reliable construction.

An even further object of the present invention is to provide a new rack device which is susceptible of a low cost of manufacture with regard to both materials and labor, and which accordingly is
25 then susceptible of low prices of sale to the consuming public, thereby making such rack device economically available to the buying public.

Still yet another object of the present invention is to provide
30 a new rack device which provides in the apparatuses and methods of the prior art some of the advantages thereof, while simultaneously

overcoming some of the disadvantages normally associated therewith.

Still another object of the present invention is to provide a
5 new rack device for adjusting the height of the rack depending on the cargo being carried and the size of the vehicle being used.

Yet another object of the present invention is to provide a new rack device which includes a rack for a bed of a pickup truck.
10 The pickup truck includes a front side, a back side and a pair of longitudinal sides. The rack comprises a pair of end portions. Each of the end portions is comprised of a first bar that includes a first end and a second end. The end portion also includes a second bar that is integrally coupled to and extending upwardly away from
15 the second end of the first bar. There is a third bar that is integrally coupled to and extending away from the second bar. The third bar is orientated generally parallel to the first bar. There is also a fourth bar that is integrally coupled to and extending upwardly away from a free end of the third bar. The fourth bar is
20 orientated generally parallel to the second bar. Additionally there is a fifth bar that is removably coupled to and extending between the second bars of each of the end portions. There is also a sixth bar that is removably coupled to and extending between the first bar of each of the end portions. The sixth bar includes a first end
25 and a second end.

Still yet another object of the present invention is to provide a new rack device that allows users to haul long ladders or other long loads in the bed of a conventional pickup truck.
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Even still another object of the present invention is to provide a new rack device that is light and stable in the bed of a

conventional pickup truck. The lightness of the new rack makes it easy to place into the bed of a pickup truck. The stability of the new rack allows it to be used without the need for permanently securing it to the bed of the pickup truck.

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These together with other objects of the invention, along with the various features of novelty which characterize the invention, are pointed out with particularity in the claims annexed to and forming a part of this disclosure. For a better understanding of the invention, its operating advantages and the specific objects attained by its uses, reference should be made to the accompanying drawings and descriptive matter in which there are illustrated preferred embodiments of the invention.

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BRIEF DESCRIPTION OF THE DRAWINGS

The invention will be better understood and objects other than those set forth above will become apparent when consideration is
5 given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

Figure 1 is a schematic perspective view of a new rack device according to the present invention.

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Figure 2 is a schematic side view of the present invention taken along line 2 of Figure 1.

Figure 3 is a schematic cross-sectional view of the present
15 invention taken along line 3-3 of Figure 1.

Figure 4 is a schematic top view of the present invention showing the coupling of the first bar and the sixth bar.

20 Figure 5 is a schematic perspective view of the present invention showing a panel member.

Figure 6 is a schematic side view of the present invention showing the coupling of the first bar to the sixth bar.

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DESCRIPTION OF THE PREFERRED EMBODIMENT

With reference now to the drawings, and in particular to Figures 1 through 6 thereof, a new rack device embodying the principles and concepts of the present invention and generally designated by the reference numeral 10 will be described.

As best illustrated in Figures 1 through 6, the rack device 10 generally comprises a rack for a bed of a pickup truck. The pickup truck includes a front side, a back side and a pair of longitudinal sides extending therebetween. The rack 10 comprises a pair of end portions 11. Each of the end portions comprises a first bar 12. The first bar 12 is elongated and includes a first end 13, a second end 14, a top wall 15, a bottom wall 16 and a pair of side walls 17. Each of the side walls 17 includes a hole 18 extending therein. The first hole 18 is positioned generally adjacent to the first end 13. The first bar 12 has a generally rectangular shape.

There is a block member 20 that includes a first end 21, a second end 22 and a peripheral wall 23 extending therebetween coupled to the first bar 12. The second end 14 of the first bar 12 is integrally coupled to the peripheral wall 23. The first bar 12 is positioned generally adjacent to the first end 21 of the block member 20. The second end 22 of the block member 20 includes a bore 24 extending therein. The block member 20 has a generally rectangular shape.

To provide stability to the rack 10 there is a first foot portion 26 and a second foot portion 27. Each of the foot portions comprises a plate 28 that includes an upper surface 29 and a lower surface 30. The upper surface 28 of the first foot portion 26 is integrally coupled to the bottom wall 16 of the first bar 12 and the

second end 22 of the block member 20. The second foot portion 27 is integrally coupled to the bottom wall 16 of the first bar 12 and positioned generally adjacent to the first end 13 of the first bar 12. Additionally, each of the foot portions has a non-abrasive material, such as rubber securably attached to its lower surface 30. This helps prevent movement and the scratching of the bed of the truck. Optionally, magnets with a strong attractive force may also be included on the foot portions to further enhance the connection of the rack 10 to the vehicle.

To provide additional support, there is first support member 32 extending between and integrally coupled to the peripheral wall 23 of the block member 20 and the top wall 15 of the first bar 12. The first support member 32 is a gusset having a generally triangular shape.

There is also a second support member 33 extending between and integrally coupled to the peripheral wall 23 of the block member 20 and the upper surface 29 of the first foot portion 26.

The second support member 33 is also a gusset having a generally triangular shape.

The rack 10 also includes a second bar 35. The second bar 35 comprises a first portion 36. The first portion 36 includes a first end 37 and a second end 38, a front side 39, a back side 40 and a pair of side edges 41. The first end 37 of the first portion 36 includes a first opening 42 extending therein.

The second bar 35 also includes a second portion 43. The second portion 43 includes a first end 44 and a second end 45, a front surface 46, a back surface 47 and a pair of side surfaces 48.

The first end 44 of the second portion 43 is positioned in the bore 24 of the block member 20 and integrally coupled thereto.

5 The second end 45 of the second portion 43 is removably positionable in the first opening 42 of the first portion 36 such that the first portion 36 and the second portion 42 are selectively telescoping. The front surface 46 of the second portion 43 includes a plurality of notches 49 therein. Each of the notches 49 extends between the pair of side surfaces 48 of the second portion 43. The
10 notches 49 are spaced from each other extending the length of the second portion 43.

There is a bracket member 50 integrally coupled to and extending away from the first side edge 41 of the first portion 36.
15 The bracket member 50 is positioned generally between the first and second ends 37 and 38 of the first portion 36. The bracket member 50 includes a pair of holes 51 extending through the bracket member 50. The bracket member 50 comprises a clevis. However, other types of brackets may be used such as a U-shaped
20 bracket.

An actuating means 53 for selectively moving the first portion 36 of the second bar 35 with respect to the second portion 43 of the second bar 35. The actuating means 53 comprises a jack securably
25 attached to the first portion 36 and designed for engaging the notches 49. The jack is a conventional jack that includes a lever that is used to lift up the first portion 36 by engaging the notches 49 on the second portion 43.

30 The first portion 36 includes a loop member 54 that is pivotally coupled to and extends away from the second end 38 of the first portion 36. The loop member 54 is comprised of a

substantially rigid material such as metal. The loop portion 54 is used to tie cargo down to the rack 10. The loop portion has a generally oval shape, however, a triangular or D-shape would work as well.

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A securing member 55 is movably coupled to the loop portion 54. The securing member 55 is comprised of a chain made out of a plurality of links. Other securing members such as rope, tension (bungee) cords, or ratcheting strap tie downs may be used as well.

10 The securing member is used to secure cargo to the rack 10.

Additionally, the rack 10 includes a third bar 56. The third bar 56 is elongated and includes a first end 57, a second end 58, an upper side 59 and a lower side 60. The first end 57 of the third bar 56 is integrally coupled to and extending outwardly away from the front side 39 of the first portion 36. The third bar 56 is orientated generally parallel to the first bar 12 and positioned generally nearer the second end 38 than the first end 37 of the first portion 36. The Third bar 56 provides a place to rest long cargo that does not fit between the front side and back side of the bed of the truck.

20 A third support member 62 extends between and is integrally coupled to the front side 39 of the first portion 36 and the lower side 60 of the third arm 56. The third support member 62 is a gusset and provides support to the third arm 56.

There is a pair of arced members 63 attached to the third arm 56. Each of the arced members 63 is integrally coupled to and extending away from the lower side 60 of the third bar 56. The pair of arced members 63 is positioned generally between the first and second ends 57 and 58 of the third bar 56 and orientated generally parallel to the second bar 35. The pair of arced members 63 is

comprised of a substantially rigid material such as aluminum, steel, or iron. The pair of arced members are used to aid in tying down cargo to the third bar 56.

5 The rack 10 additionally includes a fourth bar 65. The fourth bar 65 is elongated and includes a first end 66 and a second end 67. The first end 66 of the fourth bar 65 is integrally coupled to and extending upwardly away from the second end 58 of the third bar 56. The fourth bar 65 is orientated generally parallel to the second
10 bar 35. The fourth bar is used to contain the cargo on the third bar 56.

 There is a panel member 69 attached to the fourth bar 65. The panel member 69 includes a first side 70 and a second side 71. The
15 first side 70 of the panel member 69 is integrally coupled to a first side edge 68 of the fourth bar 65. The panel member 69 is positioned generally adjacent to the second end 67 of the fourth bar 65. The panel member 69 includes a pair of slots 72 extending therein. An outer surface 73 of the panel member 69 includes a
20 generally concave shape. The pair of slots 72 is used as a tie down for securing cargo to the fourth bar 65.

 The rack 10 further includes a fifth bar 74. The fifth bar 74 extends between and is removably coupled to the second bar 35 of
25 each of the end portions 11. The fifth bar 74 includes a first end 75 and a second end 76. Each of the ends includes an aperture 77 extending therein. Each of the apertures 77 includes a size designed for receiving one of the bracket members 50.

30 There are a pair of fastening means 78 for removably coupling the fifth bar 74 to each of the bracket members 50. Each of the fastening means 78 is positionable in one of the apertures 77 of the

fifth bar 78 and extends into the hole 51 of one of the bracket members 50 such that each of the fastening means 78 extends through the apertures 77 of the fifth bar 74. In an embodiment the second bars 35 of each of the end portions 11 are removably coupled together by the fifth bar 74. The fifth bar 74 provides cross-support to the rack 10.

An additional source of cross-support is a sixth bar 79. The sixth bar 79 is elongated and includes a first end 80, a second end 81, a first side edge 82 and a second side edge 83. The sixth bar 79 extends between and is removably coupled to each of the second ends 14 of the first bars 12. The sixth bar 79 is orientated generally perpendicular to each of the first bars 12.

Securing the sixth bar 79 to the first bars 12 is a pair of coupler members 84. Each of the coupler members 84 is integrally coupled to and extends away from one of the first edges 82 of the sixth bar 79. A first coupler member 85 is positioned generally adjacent to the first end 80 of the sixth bar 79. A second coupler member 86 is positioned generally adjacent to the second end 81 of the sixth bar 79. Each of the coupler members 84 includes a pair of holes 87. Each of the coupler members 84 comprises a clevis.

Securing each of the coupling members 84 to the first bars 12 is a pair of coupling means 89. The coupling means 89 removably couples each of the first bars 12 to one of the coupler members 84. Each of the coupling means 89 is positionable in one of the holes 87 of the coupler members 84 and extends into one of the holes 18 of the first bars 12 such that each of the coupling means 89 extends through the pair of holes 87 in the coupler members 84. The

coupling means comprises a bolt and nut or any other suitable means of securing the coupler members 84 to the first bars12.

In use, the first portion 36 is lifted by the actuating means 53 to a height necessary for the cargo being carried. The user then places the cargo on the third bars 56. Using the securing member 55 the user ties the cargo to the loop portion. If the cargo needs to be more securely tied down other tying means may be used to secure the cargo.

As to a further discussion of the manner of usage and operation of the present invention, the same should be apparent from the above description. Accordingly, no further discussion relating to the manner of usage and operation will be provided.

With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of the invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by the present invention.

Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.